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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,424

05/30/2006

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EXAMINER

ADAMOS, THEODORE V

ART UNIT

PAPER NUMBER

3635

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,424	<b>Applicant(s)</b> SKENDZIC ET AL.	
	<b>Examiner</b> THEODORE ADAMOS	<b>Art Unit</b> 3635	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This is a final Office Action on the merits for application 10/560,424. Receipt of the amendments filed on 02/16/2010 are acknowledged.

- Claims 1, 3 and 4 are pending
- Claims 2 and 5 are cancelled
- Claims 1, 3 and 4 are examined.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amormino (U.S. Patent 4,669,240) in view of Konopka (U.S. Publication 2004/0003565) and Altizer (U.S. Patent 4,674,250).**

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4. Regarding claim 1, Amormino discloses a composite vertical wall panel comprising:

- two concrete layers (#15 and #19; figure 6), both of the concrete layers being reinforced substantially with a steel wire mesh layer (longitudinal and lateral rods #17 form a mesh)
- the two concrete layers being interconnected continuously throughout an entire length of the panel by at least two strip webs (#25) so that a gap is formed between the two concrete layers, the gap being filled by a layer of thermo-insulation (#29) inwardly adhered to an inner concrete layer of the two concrete layers, with a rest of the gap between the two concrete layers being used as a separate layer of air ventilation (#33),
- the strip webs being anchored to both of the concrete layers (figure 6) and comprising steel rod anchors (#23) and also additional longitudinal reinforcing bars (multiple steel rod anchors #23 are used within the panel of figure 7 which could be considered additional longitudinal reinforcement rods together with steel rod anchors)
- supports located at an upper end of the two concrete layers for bearing roof flat soffit units (figure 1 depicts roof panels #85 supported upon support portions #41 of wall panels #11)

However, Amormino does not disclose two steel wire mesh layers within each concrete layer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used two steel wire mesh layers within each concrete layer instead of one as disclosed in Amormino, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. It would have also been obvious to a person of ordinary skill in the art to have used multiple steel wire mesh layers in each concrete layer in order to provide each concrete layer with the proper tensile strength needed for each application of the panel. Please note that in the instant application, page 13, line 24 - page 14, line 2, applicant has not disclosed any criticality for the claimed limitations.

Amormino also does not disclose the short steel rod anchors placed a distance between the two steel wire mesh layers with additional longitudinal reinforcing bars conducted through it as well.

It would have also been obvious to a person of ordinary skill in the art at the time the invention was made that the short steel rod anchors and longitudinal rods of Amormino would be positioned a distance between the two steel wire mesh layers when a second steel wire mesh layer would be placed in each concrete layer since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Please note that in the instant application, page 14, lines 2-10, applicant has not disclosed any criticality for the claimed limitations.

Amormino also does not disclose strip webs being anchored to both concrete layers through a plurality of welds and having arranged steel loops containing holes into which the steel rod anchors are inserted.

Konopka discloses an insulated load bearing building wall which comprises of webs #26 with loops #86 on either end of the wall tie into which a rod anchor #24 is inserted into; figure 3A. The wall ties are also secured to the rod anchors by conventional welding or by some other suitable means for fastening these components together (paragraph 29 | lines 15-18).

It would have been obvious to a person of ordinary skill in the art at the time the invention was created to have used the webs comprising loops that are welded to rod anchors as disclosed in Konopka within the wall panel of Amormino in order to be able to alter the amount of web elements used within the wall to alter the strength characteristics of the wall for each application of the invention where more web elements could be added to strengthen the wall panel or less web elements could be added to save on the cost of manufacture.

Amormino further does not disclose an inbuilt steel tube protruding from the two concrete layers.

Altizer discloses wall panels #11 comprising a steel tube #20 protruding from the top of the wall panel where the tube is anchored using conventional fastening methods such as welding, riveting, etc. (col. 3 | lines 57-60). The tube also comprises two bolts #38 extending upwardly from the top surface of the tube upon which a soffit plate #63 of

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the flat soffit unit #12 is slipped over through two holes through which the fasteners are inserted into and fixed by nuts.

It would have been obvious to a person of ordinary skill in the art at the time the invention was created to have included the steel tubes used to support roof soffit units, as disclosed in Altizer, within the wall panels of Amormino in order to strengthen the connection between the wall panels and roof soffit units as well as provide a stronger support on the wall panel where the roof soffit unit is supported.

The functional recitation “to gradually transmit roof load from the steel tube to both of the two concrete layers centrically, without considerable stress concentration” has been carefully considered but deemed not to impose any structural limitations on the claims distinguishable over the Referenced device which is capable of being used as claimed if one desired to do so. MPEP 2112.

**5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amormino in view of Konopka and Altizer as applied to claim 1 above, and further in view of Berney et al. (U.S. Patent 3,336,709).**

6. Regarding claim 3, Amormino in view of Konopka and Altizer disclose the claimed invention, including a support for bearing a rigid floor unit inside of a horizontal groove formed along an interrupt of the inner concrete layer (figure 1 of Amormino depicts a groove positioned within the wall panel through which a floor unit #81 is

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supported on and overlaps the webs of the wall panel), except for another inbuilt steel tube anchored to both of the two concrete layers.

Berney et al. discloses a building panel wall which uses inbuilt steel tubes #34 on its upper and lower edges to mount a concrete floor unit #21 to a wall panel #24 using bolts #36 inserted into a T-slot #35 in the tube #34 and secured to an angle bracket #38. The angle bracket is then secured to the web #29 of the wall panel #24 using a bolt #40 and nut #41 so that the tube #34 is placed at a right angle to the web #29 of the wall panel #24.

It would have been obvious to a person of ordinary skill in the art at the time the invention was created to have used steel tubes as disclosed in Berney et al. within the floor unit placed within a groove in the wall panel of Amormino in view of Konopka and Altizer in order to strengthen the connection between the floor unit and wall panel and allow the building to be able to resist greater forces.

**7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amormino in view of Altizer.**

8. Regarding claim 4, Amormino discloses a building construction of composite load-bearing vertical wall-panels (#11; figure 1) and composite roof-ceiling units (#85), said building comprising:

- wall panels aligned and rigidly fixed as cantilevers from strip precast foundations (#43) having longitudinal sockets (#44) arranged along a perimeter of the building (figure 1), and each wall panel including a cast concrete inner layer (#15)



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and a cast concrete outer layer (#19), and a layer of mesh reinforcement (#17) placed in each of the inner and outer layers, on opposites sides of an insulation layer (#29) and an air layer (#33),

- widths of the wall panels exactly coinciding with widths of a ceiling unit (#85) and a floor unit (#81) to ensure precise coincidence of connecting details (It would have been obvious to a person of ordinary skill in the art to make the panel dimensions similar to the other elements of the structure in order to keep conformity between the structure elements. The disclosure also defines in col. 7 | lines 48-49 and lines 60-62 that the flooring #81 and roof panel #85 may be the same construction as the panel #11, therefore the widths would be the same if the panels #11 were to be used for the vertical and horizontal walls of the building.), so that the building having all flat inner surfaces (figure 1), avoids a need for either columns or beams (figure 1 depicts a structure which is erected using wall panels with no assistance of columns or beams),
- tops of the wall panels being attached to a stiff horizontal plane formed of ceiling plates (the horizontal roof of figure 1 is made of ceiling panels #85) interconnected along adjacent edges to be laterally restrained against sideway forces by joining endplates of roof ceiling plates to the wall panels (the end of the roof panel #85 lies within an opening formed within the wall panel so that it lies above the inner concrete layer and layer of insulation and also so that it is connected to the outer concrete

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layer #19 of the wall panel to restrain the roof panel from sideways forces).

However, Amormino does not disclose two interspaced layers of mesh reinforcement placed in each of the inner layer and in the outer layer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used two steel wire mesh layers within each concrete layer instead of one mesh layer as disclosed in Amormino, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. It would have also been obvious to a person of ordinary skill in the art to have used multiple steel wire mesh layers in each concrete layer in order to provide each concrete layer with the proper tensile strength needed for each application of the panel. Please note that in the instant application, page 13, line 24 - page 14, line 2, applicant has not disclosed any criticality for the claimed limitations.

Amormino further does not disclose steel tubes anchored to and extending across the inner and outer concrete cast layers, one for supporting the ceiling unit and one for supporting the floor unit protruding near the two concrete layers.

Altizer discloses wall panels #11 comprising a steel tube #20 protruding from the top of the wall panel where the tube is anchored using conventional fastening methods such as welding, riveting, etc. (col. 3 | lines 57-60). The tube also comprises two bolts #38 extending upwardly from the top surface of the tube upon which a soffit plate #63 of

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the flat soffit unit #12 slipped over through two holes through which the fasteners are inserted into and fixed by nuts.

It would have been obvious to a person of ordinary skill in the art at the time the invention was created to have included the steel tubes used to support roof soffit units, as disclosed in Altizer, within the top portion #41 of the wall panels of Amormino so that the steel tube of the bottom wall panel #11 of figure 1 supports the floor unit #81 and the steel tube of the top wall panel #11 of figure 1 supports the ceiling unit #85 in order to strengthen the connection between the wall panels and the floor and ceiling units as well as provide a stronger support on the wall panel where the floor and ceiling units are supported.

#### ***Response to Amendment***

9. The amendments to the specification filed on 02/16/2010 overcome the specification and drawing objections of the previous Office Action.

#### ***Response to Arguments***

10. Applicant's arguments filed 02/16/2010 have been fully considered but they are not persuasive.

11. In response to applicant's argument that "there is no, even slight similarity in the way how the inventive panel works compared to all of the other cited patents" and "there is nothing in Amormino's patent that even slightly deals with overall stability of the large building", a recitation of the intended use of the claimed invention must result in a

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structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

12. In response to Applicant's arguments that "there is not one single word {in Amormino] about forming a rigid floor of many interconnected units," col. 5 | lines 31-37 and figure 2 of Amormino discloses the building comprises of a series of laterally aligned wall panels #11 arranged side by side and col. 7 | lines 48-49 and lines 60-62 defines that the flooring #81 and roof panel #85 may be the same construction as the panel #11. Also, col. 6 | lines 45-47 defines the floor slab #77 can be substituted with horizontally positioned wall panels #11. Therefore, the rigid floor can be formed from many interconnected units, such as multiple horizontal wall panels #11.

13. In response to applicant's argument that "the number of layers of meshes in each concrete layer is also of a second order meaning...so it cannot be qualified as 'mere duplication of essential working parts' as said in the rejection", the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. Providing more layers of meshes within the invention of Amormino would obviously provide more strength to the wall panel. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

### **Conclusion**

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THEODORE ADAMOS whose telephone number is (571)270-1166. The examiner can normally be reached on Mon-Fri 7:30a.m. to 5:00 p.m. with the first Friday of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571)272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot, Jr./  
Supervisory Patent Examiner, Art Unit 3635

/T. A./  
Examiner, Art Unit 3635